UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,949	04/25/2001	Matthew L. Hill	YOR920000686US1	6218

7590   05/07/2004

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EXAMINER
MIZRAHI, DIANE D

ART UNIT	PAPER NUMBER
2175	10

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/841,949	HILL ET AL.
	Examiner	**Art Unit**
	DIANE D. MIZRAHI	2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*29 March 2004*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-33* is/are pending in the application.

     4a) Of the above claim(s) *15 and 30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,13,16-18,20,21,28 and 31-33* is/are rejected.

7)☒ Claim(s) *4,7-12,14,19,22-27 and 29* is/are objected to.

8)☒ Claim(s) *15 and 30* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

III. DETAILED ACTION

Claims 1-14, 16-29 and 31-33 are presented for examination.

Claims 15 and 30 should be canceled by Applicant.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for
patent, published under section 122(b), by another filed in the
United States before the invention by the applicant for patent
or (2) a patent granted on an application for patent by another
filed in the United States before the invention by the applicant
for patent, except that an international application filed under
the treaty defined in section 351(a) shall have the effects for
purposes of this subsection of an application filed in the
United States only if the international application designated
the United States and was published under Article 21(2) of such
treaty in the English language.

Claims 1-3, 5,6,13,16-18,20-21,28, and 31-33 are rejected

under 35 U.S.C. 102(e) as being anticipated by Hosagrahar V.

Jagadish et al. (US Patent No. 6,401,088 B1 and Jagadish

hereinafter).

Regarding Claims 1, 16 and 31-33, Jagadish teaches a method

of segmenting a set of data elements into one or more groups of

data elements representing one or more objects, the method

comprising the steps of: generating an optimized search

function (i.e. optimizing structured query language) (col 1,

lines 19-31); applying the optimized search function to the data

elements of the set of data elements so as to prune a search

space associated with the set of data elements (i.e. the

substring in the tree… The storage requirements …proposed for

estimating substring selectivity using another variation of the

suffix tree… a pruned count-suffix tree ("PST") which retains

only those substrings, and their counts, for which the count

exceeds some prune threshold)(col 1,lines 32-45); and applying a

match function to the pruned search space so as to segment the

set of data elements into the one or more groups of data

elements representing the one or more objects (i.e. a pruned

count-suffix tree ("PST") which retains only those substrings,

and their counts, for which the count exceeds some prune

threshold)(col 1, lines 32-45).

Regarding Claims 2 and 17, Jajadish teaches wherein the

optimized search function is generated based on a randomly

selected portion of data elements from the set of data elements

(i.e. probability) (col 3, lines 47-62).

Regarding Claims 3 and 18, Jagadish teaches wherein the

step of generating the optimized search function further

comprises the step of evaluating two or more search functions to

determine which one of the two or more search functions

substantially meets a particular match function criterion (i.e.
greedy parsing) (col 3, lines 15-31).

Regarding claims 5 and 20, Jagadish teaches wherein at
least one of the two or more search functions are selected from
a catalog of candidate search functions (i.e. for indexing
substrings)(col 1, lines 32-46).

Regarding Claims 6 and 21, Jagadish teaches wherein the
step of generating the optimized search function further
comprises the step of employing a learning algorithm (col 6,
lines 41-46).

Regarding Claims 13 and 28, Jagadish teaches wherein at
least one of the set of data elements and the match function is
provided by a user (i.e. person skilled in the art) (col 8,
lines 67).

Allowable Subject Matter

Claims 4, 7-12, 14, 19, 21-27 and 29 are objected to as
being dependent upon a rejected base claim, but would be
allowable if rewritten in independent form including all of the
limitations of the base claim and any intervening claims.

Applicant's particular method of segmenting a set of data
elements into one or more group of data elements representing
one or more objects in which two or more search functions is

unoptimized, adaptive mutation of one or more search functions

includes random mutation, learning algorithm including combining

two or more search functions during the generation of the

optimized search function and set of data elements includes

unstructured image data in combination with the other

limitations of the claims, was not disclosed by, would not have

been obvious over, nor would have been fairly suggested by the

prior art of record.

Conclusion

Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Diane D.

Mizrahi whose telephone number is (703) 305-3806. The examiner

can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Dov Popovici can be

reached on (703) 305-3830. The fax phone numbers for the

organization where this application or proceeding is assigned

are (703) 305-9000 for regular communications and (703) 305-9000

for After Final communications.

Any inquiry of a general nature or relating to the status

of this application or proceeding should be directed to the

receptionist whose telephone number is (703) 305-9001.

Diane Mizrahi
Primary Patent Examiner
Technology Center 2100

May 1, 2004